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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,136	12/07/2000	Malcolm Barry James	1075-P0005	5715

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DALINA PATENT GROUP
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EXAMINER

LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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03/05/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jmayero@dalinalaw.com

Office Action Summary	Application No. 09/719,136	Applicant(s) JAMES, MALCOLM BARRY	
	Examiner EMMANUEL S. LUK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-35 and 44-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-35 and 44-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 33-35 and 44-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osakabe (6073683) in view of Sendt (3644110).

Osakabe teaches a method of cooling parts (abstract and Col. 8, line 6 to Col. 9, line 2). The apparatus having at least one completely closed chamber with air substantially removed therefrom and having a single quantity of liquid that extends to cover at least one of the areas from which heat is to be taken (Fig. 1B, 13, 3 and 7, also see Col. 2, lines 5-26 and Col. 8, lines 30-42). Each of the at least one completely closed chamber being integrated with the module 2 and a space above the single quantity of liquid and within the completely closed chamber in which pressure within the space is caused to be set a level which will enable the single quantity of liquid to boil at a selected temperatures, said selected temperature being at a level such that the temperature is below a temperature of the areas from which heat is to be taken this being by reason of, as a first step, filling of the completely closed chamber with the single quantity of liquid and then extracting a selected portion of the single quantity of liquid without allowing air to replace the extracted liquid, and passing at a selected cooling temperature, the single quantity of liquid through condensing means to affect, by such cooling, condensation of vapor of the single quantity of liquid in the space to return

the condensed vapor to the single quantity of liquid by gravity. The member appears to be airtight sealed (Col. 10, lines 37-39).

Osakabe does not teach a mold die.

However Osakabe does teach a heat generating unit 2 which the cooling apparatus 1 is attached. In addition, Sendt teaches a tool being a mold element (Col. 12, lines 13-22) including a cooling arrangement having capsules/chambers 63, 78, 90, having the phase change of a liquid to a vapor, the arrangement in a closed chamber. As seen in the figures, the cooling system is in an area adjacent to the mold walls (including 72, 73, 86, 87), the closed chamber is integrated within the mold, see Figures 4-6. The chambers configured along with the shape of the mold as seen in Figures 4-6 allows for uniform cooling of the throughout the mold surface.

It would have been obvious for one of ordinary skill in the art to recognize the cooling apparatus of Osakabe could be utilized for cooling elements to other heat generating units such as a die mold as taught by Sendt thereby allowing for influencing the temperature of the tool (Col. 1, lines 4-9).

Response to Arguments

3. Applicant's arguments with respect to claims 33-35 and 44-56 have been considered but are not persuasive. The applicants argued concerning the uniform cooling of the molding surface of the mold, the area being adjacent to the molding surface of the mold, and at least one completely closed chamber being integrated within the mold. The rejection of Osakabe in view of Sendt, teaches these features,

particularly the uniform cooling of the molding surface, as seen in Figures 4-6 of Sendt.

As seen in the Figures 4-6, and further 7-13, the chambers are integrated within the mold and some are adjacent to the molding surface with a conforming shape (see Figures 4-6 specifically) that allows for uniform cooling along the molding surface.

Osakabe and Sendt are relevant to the mold cooling arts, Osakabe since it pertains to known refrigerating arts and methods including the sealed chambers, and Sendt since it particularly teaches the mold cooling. One skilled in the art would find the Osakabe reference relevant in cooling of the mold, the combination of the Osakabe and Sendt references teach the claimed invention of uniform cooling of the mold surface.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMMANUEL S. LUK whose telephone number is (571)272-1134. The examiner can normally be reached on Monday-Fridays from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/

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Supervisory Patent Examiner, Art Unit 1791

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